THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 33

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SATOSHI NAKAMURA

Appeal No. 96-0616
Application No. 08/036,249[1]

HEARD: March 10, 1999

Before MEISTER, FRANKFORT and GONZALES, Administrative Patent Judges.

GONZALES, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the examiner's refusal to allow claims 2, 3 and 8 through 10, as amended after a final

[1] Application for patent filed March 24, 1993.

rejection.[2] Claims 1 and 4 through 7 have been canceled.

These are all the claims in the application.

We AFFIRM-IN-PART

[2] In response to new grounds of rejection made in the examiner's answer, appellant filed an amendment (Paper No. 20) on June 16, 1995, in which claim 1 was canceled and claims 8 and 9 were rewritten in independent form.

BACKGROUND

The appellant's invention relates to an arrangement for mounting electronic components on a supply tape which is to be fed to a machine for mounting the components onto a printed circuit board. An understanding of the invention can be derived from a reading of exemplary claim 2, which appears in the separate "Appendix" filed on December 29, 1994 (Paper No. 18).[3]

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Hori		4,223,786	Sep. 23, 1980
Kikuchi et al.	(Kikuchi)	5,141,450	Aug. 25, 1992
Kuwahara, et al. (Japanese Kokai Application)	(Kuwahara)	3-212,369	Sep. 17, 1991
Kitagawa et al. (Japanese Kokai Application)	(Kitagawa)	4-102,575	Apr. 03, 1992

The following rejections are before us for review:

[3] A correct copy of claims 8 and 9 can be found in the amendment filed June 16, 1995 (Paper No. 20).

(1) Claims 8 and 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kikuchi;

(2) Claims 8 and 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kuwahara;[4]

(3) Claims 2 and 10 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hori in view of Kuwahara; and

(4) Claim 3 stands rejected under 35 U.S.C. § 103 as being unpatentable over Hori in view of Kuwahara, further in view of Kitagawa.[5]

In the final rejection, claims 2, 3 and 10 were also rejected under 35 U.S.C. § 103 as being unpatentable over Kikuchi. This ground of rejection, however, was withdrawn in the examiner's answer (page 4).

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 19, mailed April 17, 1995), first supplemental answer

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[4] In determining the teachings of Kuwahara and Kitagawa, we will rely on the translations provided by the PTO. A copy of the translations are attached for the appellant's convenience.

[5] Rejections (2)-(4) are new grounds of rejection made in the examiner's answer (pages 4-6).

(Paper No. 23, mailed August 25, 1995), and second supplemental answer (Paper No. 25, mailed November 13, 1995) for the examiner's complete reasoning in support of the rejections, and to the appellant's main brief (Paper No. 17, filed December 21, 1994), reply brief (Paper No. 21, filed June 16, 1995), and supplemental reply brief (Paper No. 24, filed October 20, 1995) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

Rejection (1)

Kikuchi shows electrical connectors or components C_1, C_2, and C_3, each connector including conducting pin terminals 12 and 14 arrayed in two rows and extending from a non-conductive

housing 10 (col. 2, lines 9-11). Support pins 16 are affixed to the non-conductive housing 10 to support the electrical connectors on a carrier tape. The support pins 16 are longer than terminals 12 and 14, but are clearly not "outermost" with respect to the terminals. See Figs. 3A-3C.

Independent claims 8 and 9 are drawn to taped electronic components comprising, inter alia, a plurality of electronic components, a plurality of lead groups attached to respective ones of the electronic components wherein each lead group has a plurality of leads and the outermost leads of the lead group of each component are longer than the remaining leads of the lead group, and a tape for taping the outermost leads together to fix them in position.

In applying the test for obviousness,[6] we reach the conclusion that the claimed subject matter would not have been suggested by the applied prior art. Specifically, we see no suggestion in the applied prior art for modifying Kikuchi so that the outermost leads of the lead group of each component

[6] The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

are longer than the remaining leads of the lead group. Thus, we must conclude that the examiner used impermissible hindsight.[7] Since all the limitations of claims 8 and 9 are not suggested by the applied prior art for the reasons set forth above, the decision of the examiner to reject claims 8 and 9 under 35 U.S.C. § 103 over Kikuchi is reversed.

Rejection (2)

Kuwahara teaches a method of preventing the detachment of electronic parts 1 or 8 from a strip of backing paper 5 wherein the outermost leads 2 and 3 (Figs. 1 and 2) or 12 and 13 (Fig. 3) of an electronic part are made longer than the remaining leads and an adhesive tape 6 is attached to the backing paper with the outermost leads held securely therebetween.

[7] The conclusion that the claimed subject matter is obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071,1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

Claim 8 is drawn to the combination of elements set forth above in the discussion of rejection (1) and, in addition, specifies that the electronic components are hybrid ICs. It is the examiner's position (answer, page 5) that it would have been obvious to apply Kuwahara's teaching to hybrid ICs.

Appellant argues (reply brief, pages 5 and 6) that there is no motivation in the art to apply Kuwahara's teaching to hybrid ICs because hybrid ICs have more than four leads and, even if it were obvious to apply Kuwahara's teaching to hybrid ICs, there would have been no motivation to arrive at the specific arrangement recited in claim 8.

We disagree. Kuwahara clearly teaches that an electronic part having three or four leads is held more securely between a strip of backing paper and adhesive tape, if the outermost leads of the lead group are made longer than the interior leads and the

adhesive tape is applied to the backing paper with the outermost leads held therebetween. While appellant argues that all hybrid ICs have more than four leads, there is no

evidence in the file to support the argument.[8] Appellant has admitted in his specification that it was known prior to his invention to supply hybrid ICs to an automatic mounting device by means of a tape in which the hybrid ICs are supported on the tape by a plurality of interior adjacent leads (pages 1 and 2 and Fig. 1). In order to obtain the benefits of the invention specifically disclosed by Kuwahara, it is our opinion that Kuwahara would have fairly suggested to a person of ordinary skill in the art to make the outermost leads of a hybrid IC longer than the remaining leads and to secure the hybrid IC to a strip of backing paper by attaching the adhesive tape to the backing paper with the outermost leads held therebetween.

We also disagree with appellant's argument that there would have been no motivation to arrive at the specific arrangement recited in claim 8. While Kuwahara's teaching may well suggest other arrangements to a person of ordinary skill in

[8] Attorney's arguments in a brief cannot take the place of evidence. In re Pearson, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974).

the art, e.g., like those illustrated on page 6 of appellant's reply
brief, we are of the opinion that the most obvious arrangement suggested by Kuwahara is that of providing the outermost leads as the longest leads.

In view of the above, the decision of the examiner to reject claim 8 under 35 U.S.C. § 103 over Kuwahara is sustained.

With respect to claim 9, appellant argues (reply brief, pages 6 and 7) that Kuwahara fails to suggest a lead group composed of nine leads sequentially arranged with the first, second, eighth and ninth leads being fixed together by the tape. The examiner's response (first supplemental answer, page 4) is that electronic components are conventionally made with different numbers of leads and it would have been obvious in view of Kuwahara to tape the four outermost leads of a nine lead component for greater stability as required or needed.

The examiner has failed, however, to explain why it would have been obvious to tape the four outermost leads for greater stability. Kuwahara teaches taping the two outermost leads of

a three or four lead electronic component. The examiner has not shown or explained why it would have been obvious in view of the applied prior art to tape the first, second, eighth and ninth leads as opposed to, e.g., the first and ninth or the first, fifth and ninth leads.

The legal conclusion regarding obviousness relies on a factual foundation, including the definition of the scope and content of the prior art. See Panduit Corp. V. Dennison Mfg. Co., 810 F.2d 1561, 1566-68, 1 USPQ2d 1593, 1595-97 (Fed. Cir. 1987). "Where the legal conclusion of obviousness is not supported by facts it cannot stand." See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967). For the foregoing reasons, we conclude that the examiner has failed to establish a sufficient factual basis to support a prima facie case of obviousness. Accordingly, we will not sustain the rejection of claim 9 under U.S.C. § 103 as unpatentable over Kuwahara.

Rejection (3)

Hori shows, in Fig. 1, a number of leads 4 and 6 formed on a support web 2. The leads are bonded to electronic elements 8 (see Fig. 2) and, thereafter, the leads and support web are cut at lines C-C, D-D, E-E and F-F (Fig. 4) leaving a portion 14 of the support web attached to lead 4. The electronic elements are then taped by securing the portion 14 between two adhesive paper tapes 10 and 12 (Fig. 5).

Independent claim 2 and dependent claim 10 are drawn to the embodiments shown in appellant's Figs. 3 and 4, and call for, inter alia, a plurality of electronic components 1 and 2, each having a lead group formed by a plurality of leads g, h and i wherein the outermost leads g and i are longer than the remaining leads h of the lead group, a lead frame 5 coupled to the plural-ity of electronic components and comprising a tie-bar 4 extending along the outermost leads of each lead group, and a tape 3 affixed to the tie-bar for fixing the outermost leads of each lead group in position.

Appellant argues that Hori's web 14 does not extend along the outermost leads and that the tape 12 is not affixed to the

web portion 14 to fix the right lead 6 in position as claimed in claim 2. We agree. Further, it is our conclusion that Kuwahara does not teach or suggest the elements found lacking in Hori. Accordingly, we will not sustain the rejection of claims 2 and 10 under 35 U.S.C. § 103 over Hori in view of Kuwahara.

Rejection (4)

Claim 3 is dependent on claim 2 and, therefore, contains the same limitations of claim 2. Based on our review of Kitagawa, it is our conclusion that Kitagawa does not teach or suggest the elements found lacking in Hori and Kuwahara. Accordingly, we will not sustain the rejection of claim 3 under 35 U.S.C. § 103 over Hori, Kuwahara and Kitagawa.

CONCLUSION

To summarize, the decision of the examiner to reject claims 8 and 9 under 35 U.S.C. § 103 as unpatentable over Kikuchi is reversed, as is the rejection of claim 9 under 35 U.S.C. § 103 over Kuwahara, the rejection of claims 2 and 10 under 35 U.S.C. § 103 over Hori in view of Kuwahara and the rejection

of claim 3 under 35 U.S.C. § 103 over Hori in view of Kuwahara and Kitagawa. However, the rejection of claim 8 under 35 U.S.C. § 103 as unpatentable over Kuwahara is affirmed. Accordingly, the decision of the examiner to reject claims 2, 3 and 8 through 10 is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

JAMES M. MEISTER Administrative Patent Judge	)
CHARLES E. FRANKFORT Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
JOHN F. GONZALES Administrative Patent Judge	)

vsh

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